

ABSTRACT OF THE DISCLOSURE

An optical communication system comprising a plastic optical fiber (1) and an optical communication module (2A),
5 wherein the optical fiber (1) has a spherical end surface (11), and the numerical aperture of radiant light emitted from the spherical end surface (11) is 0.35 or lower. The optical fiber (1) is installed at the optical communication module (2A) such that a light receiving surface of a light receiving element (21) is a distance, d, away from an apex 10 of the optical fiber spherical end surface (11). Assuming that the diameter of the optical fiber is D, the radius R of curvature of the spherical end surface, $r*D$, the refractive index of the optical fiber core, n, and the refractive index of a substance between the spherical end 15 surface of the optical fiber and the light receiving element, n1, then the distance, d, is within a range of $0 < d \leq r*D / (n-n1)$ when the diameter of the light receiving element is not larger than D, and within a range of $D \leq d \leq r*D / (n-n1)$ when the diameter of the light receiving element is larger than D. Accordingly, this optical communication system enables efficient optical coupling of an optical fiber having a large aperture and a light receiving element having a small aperture with a simple 20 configuration.

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